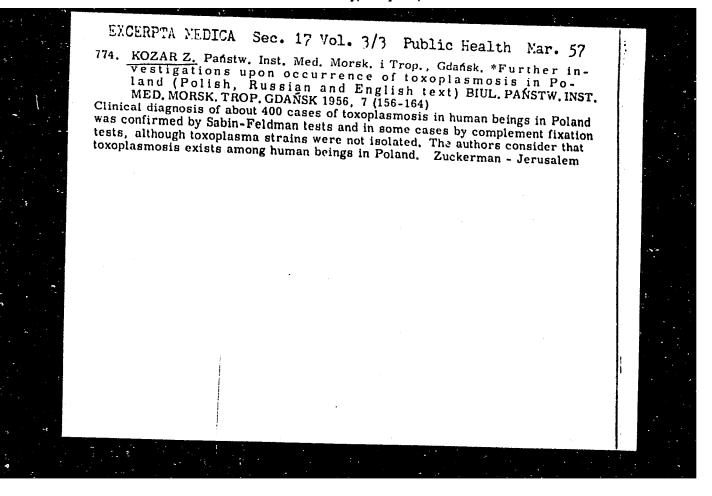
HIRSCHLEROWA, Zofia; KOZAR, Zbigniew

Sabin-Feldman test as a method of investigation of the resistance mechanism. Bull. Inst. Marine Trop. M. Gdansk 7:p.145-150; Russian transl. p. 150-152; English transl. p. 153-155 1956.

 Z Panst. Inst. Med. Mors. Trop. w Gdansku. (TOXOPLASMOSIS, diagnosis, dye test (Pol; Rus; English))



Hormonal factors in the development of toxoplasmosis. Bull.
Inst. Marine Trop. W. Gdansk 7:165-168 1956.

1. Z Panst. Inst. Med. Mors. Trop. w Gdansku i Akad. Med. w
Bialymstoku.

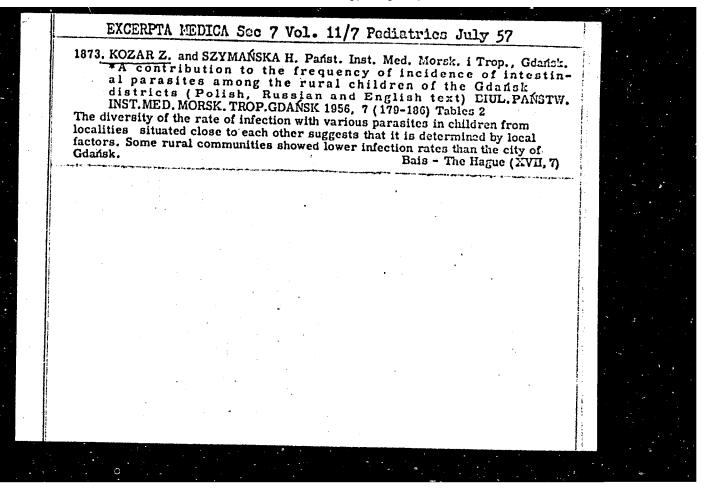
(GONADOTROPINS, PITUITARY, effects,
on exper. toxoplasmosis (Pol))

(TOXOPLASMOSIS, experimental,
eff. of pituitary gonadotropins (Pol))

KOZAR, Zbigniew; SZYMANSKA, Helena

Epidemiological investigations on intestinal parasites at a psychiatric hospital. Bull. Inst. Marine Trop. M. Gdansk 7: 169-180 1956.

1. Z Panst. Inst. Med. Mors. i Trop. w Gdansku. (HELMINTH INFECTIONS, epidemiology, survey in psychiat. hosp. (Pol))



Immunologic phenomena in trichinosis. Postepy hig. med. dosw. 10 no.4:329-358 1956.

1. Instytut Medycyny Morskiej Gdansk-Wrzeszcz, ul. Hibnera 1 c. (TRICHINOSIS, immunology, review (Pol))

KOZAR, Z.

Polish Parasitological Society. Zool.zhur. 35 no.6:947-948
Je '56. (MLRA 9:10)

1. General'nyy sekretar' Glavnogo upravleniya Pol'skogo parazitologicheskogo obshchestva.

(Poland--Parazitological secieties)

Ten years of activity of the Parasitological Laboratory of the Institute of Marine Medicine in Gdansk. Wiadomosci parasyt., Warsz. 3 no.1:19-25 1957.

(PARASITOLOGY

Parasitol. Laboratory of Institute of Marine Med., Gdansk, Poland, activities (Pcl))

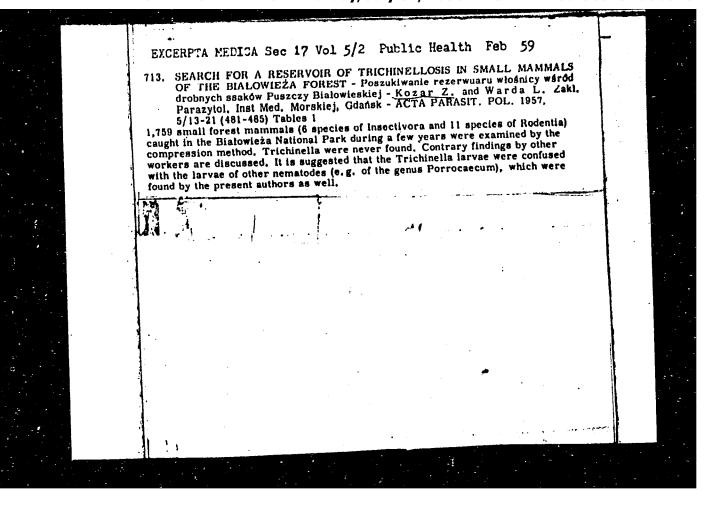
Critical survey of research on problems of medical parasitology carried out since the last meeting (1954-1956) Wiadomosci parazyt., Warsz. 3 no.2-3:107-148 1957.

1. Z Instytutu Medycyny Morskiej w Gdansku. (PARASITOLOGY

research in Poland (Pol))

KOZAR, Zbigniew

Institute of tropical medicine in Hamburg. Wiadomosci parazyl.,
Warsz. 3 no.5:505-514 1957.
(MEDICIN3, TROPICAL
Bernhard-Nocht Institut fur Schiffs. & Tropenkrankheiten
in Hamburg (Pol))

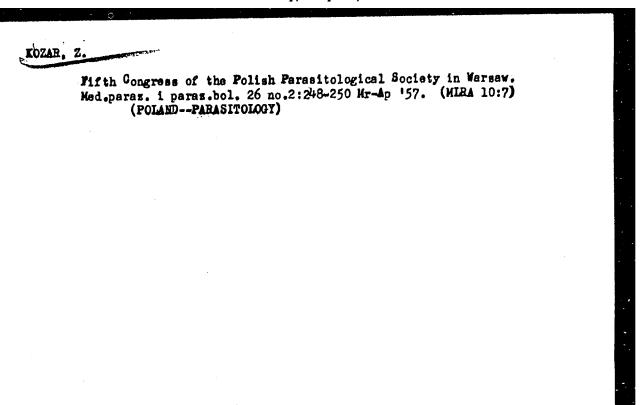


Proper position of medical parasitology. Polski tygod. lek. 12 no.7:257-260 11 Feb 57.

1. Adres: Gdansk-Wrzeszcz u. Hibnera 1c, Instytut Medycyny Morskiej.

(PARASITOLOGY

in Poland, review (Pol))



POLAND/Zooperasitology - Parasitic Protozoa. Flagellates.

G.

Abs Jour

: Ref Zhur - Biol., No 21, 1958, 95285

Author

: Kozar, Zbigniew

Inst Title

: Problem of Toxoplasmosic at the Congress on Parasitology

in Prague.

Orig Pub

: Wiadom. parazytol., 1958, 4, No 1, 39-49

•

Abstract : No abstract.

Card 1/1

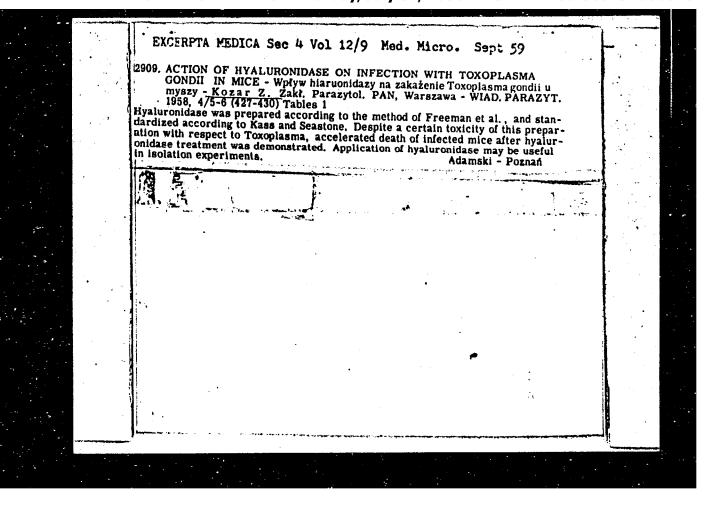
_ 4 _

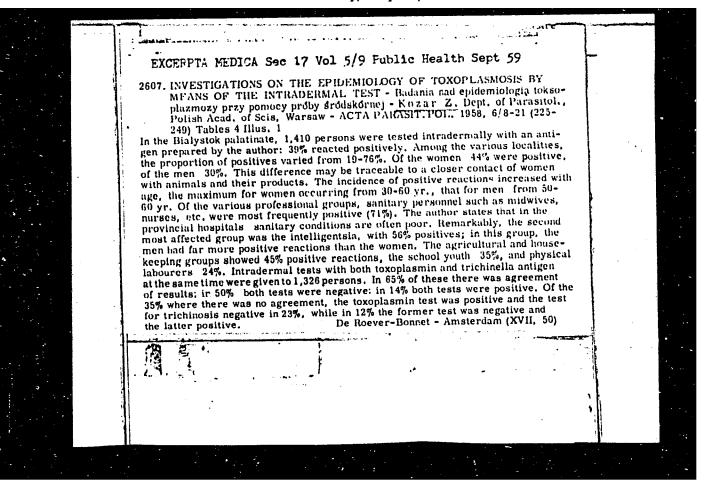
Control of Trichinella and tapeworms. Windomosci parazyt., Wersz. 4 no. 3:211-218 1958

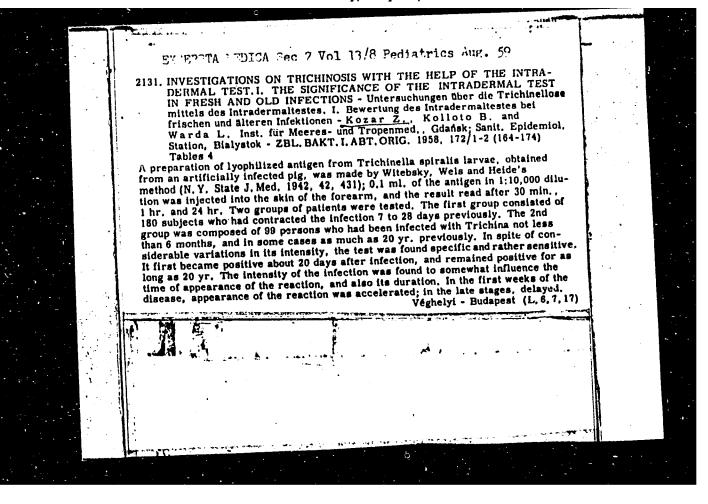
1. Z Instytutu Medycyny Morskiej w Gdansku.

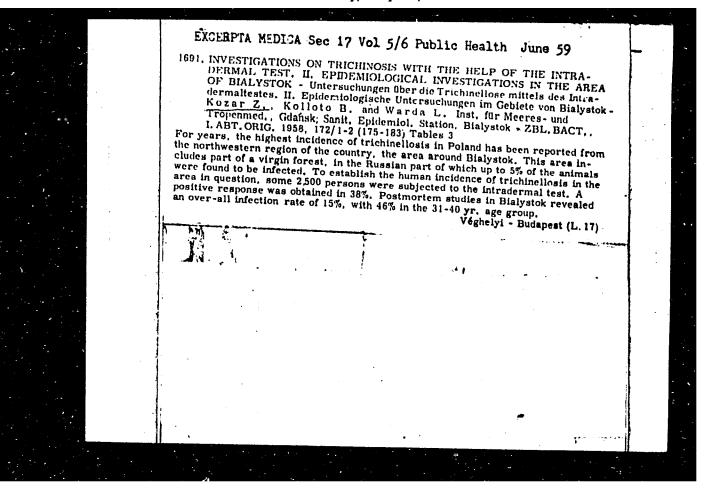
(TRICHINOSIS, prevention and control,
in Poland (Pol))

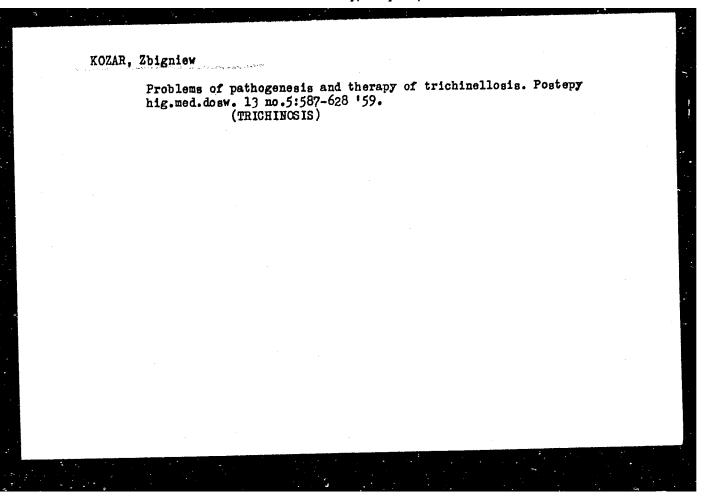
(TAPEWORM INFECTIONS, prev. & control.
same (Pol))

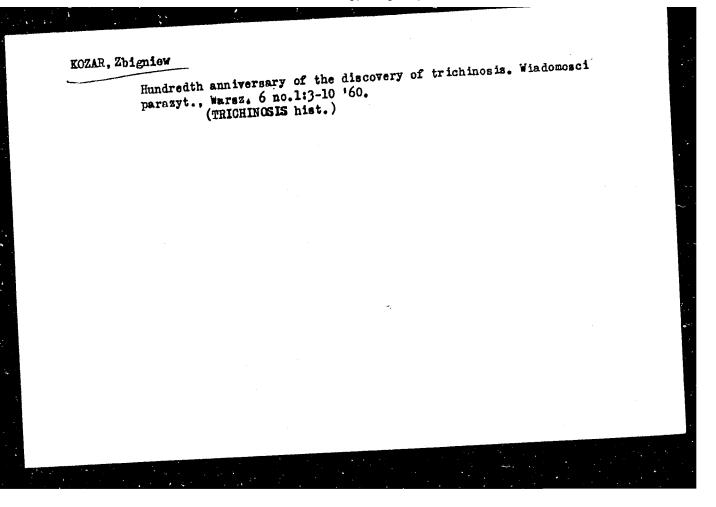


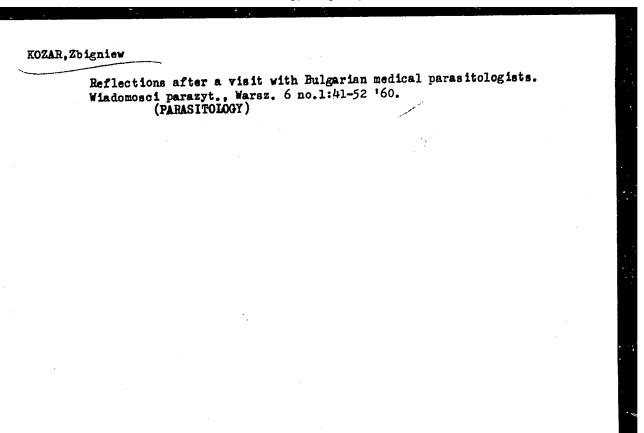












KURYLO-BOROWSKA, Zofia; KOZAR, Zbigniew

The general chemical composition of muscle trichinella spiralis larvae. Wiadomosci parazyt. 6 no.4:357-359 '60.

1. The Institute of Marine Medicine in Gdansk and the Department of Parasitology of the Polish Academy of Sciences in Warsaw.

(TRICHINELLA chem)

KOZAR, Zbigniew; KOZAR, Maria

Influence of muscular work and other factors on the course of the invasion of trichinella spiralis. Wiedomosci parasyt. 6 no.4: 363-366 '60.

1. Department of Parasitology, Polish Academy of Sciences, Warsaw. (TRICHINOSIS exper)

Studies on the problem of the role of toxoplasmosis in obstetrics. Wiadomosci parazyt., Warsz. 6 no.5:399-414 '60.

1. Zaklad Parazytologii PAN, Warszawa.
(TOXOPLASMOSIS in pregn)
(PREGNANCY compl)
(ABNORMALITIES etiol)

Certain pathological and diagnostic problems in toxoplasmosis and trichinosis. Pat.polska 11 no.4:407-416 '60.

1. Z Zakladu Parasytologii Inst. Medycyny Morskiej w Gdansku, Kierownik: doc.dr Z. Kosar. (TOXOPLASMOSIS) (TRICHINOSIS)

Mechanisms of invasion and migration of parasites in host's organism. Wiad. parazyt. 7 no.3:541-559 '61.

1. Katedra Parazytologii i Chorob Inwazyjnych WSR, Wroclaw.
(PARASITIC DISEASES transm) (PROTEASES metab)

Considerations on the epidemic of trichinosis in Mosin. Wiad. parazyt. 7 no.3:587-594 161.

1. Katedra Parazytologii i Chorob Inwazyjnych WSR, Wroclaw. (TRICHINOSIS epidemiol)

KOZAR, Zbigniew (Wroclaw, Norwida 29)

Some scientific and practical problems concerning toxoplasmosis. Wiad parazyt 7 no.4/6:867-874 16.

1. Katedra Parazytologii i Chorob Inwazyjnych, Wyzsza Szkola Rolnicza, Wroclaw.

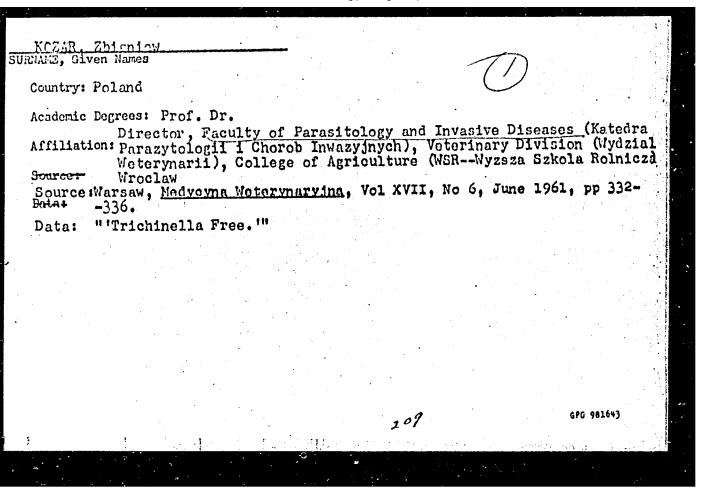
KOZAR, Zbigniew, prof.

Activities of the Polish Parasitological Society in the years 1948-1960. Nauka Pol 9 no.4:179-189 O-D '61.

1. Przewodniczacy Polskiego Towarzystwa Parazytologicznego, Wroclaw, ul. C. Norwida 29.

"APPROVED FOR RELEASE: Monday, July 31, 2000

CIA-RDP86-00513R000825720



KOZAR, Zbigniew, professor

The Polish Parasitological Society. Review Pol Academy 7 no.1:63-65 Ja-Mr 162

1. Chairman of the Polish Parasitological Society, Wroclaw, ul. Norwida 29.

KOZAR, Zbigniew, secretary of the commission

The most outstanding actual tasks of the International Commission on Trichinellosis. Wiadomosci parasyt. 8 no.1:11-16 62.

1. Department of Parasitology, Norwida 29, Wroclaw, Poland.

(TRICHINOSIS)

Summing up of the conferences on the problems of toxoplesmosis in men and animals. Wiad parazyt 7 no.4/6:963-965 161.

The review of current literature on trichinellosis. Wiad. parazyt. 8 no.6:651-701 '62.

(TRICHINOSIS)

(BIBLIOGRAPHY)

Progress in the therapy of helminthiases of domestic animals. Wiad. parazyt. 9 no.3:211-228 '63.

1. Katedra Parazytologii i Chorob Inwazyjnych WSR, Wroclaw.

(HORSE DISEASES) (CATTLE DISEASES)

(STRONGYLOIDIASIS) (OXYURIASIS)

(TRICHOSTRONGYLOSIS) (HELMINTHIASIS)

(FASCIOLIASIS) (ANTHELMINTICS)

(PARASITIC DISEASES)

KOZAR, Zbigniew; KOZAR, Maria

The course of experimental trichinellosis in mice. Methods of infection and the influence of carious invasive doses on the mortality and weight of the animals. Wiad. parazyt. 9 no.5:403-418 *63.

1. Laboratory of Anthropozoonozes of the Department of Parasitology of the Polish Academy of Sciences and Department of Parasitology, Veterinary Faculty, College of Agriculture, Wroclaw.

KOZAR, Zbigniew; SLADKI, Edward; KOZAR, Maria

Studies on the possibility to make use of pharmacological properties of azulenes for the reatment of acute and chronic trichinellosis. Wiad. parazyt. 9 no.5:419-434 63

1. Laboratory of Antropozoonoses of the Department of Parasitology of the Polish Academy of Sciences and Department of Parasitology Veterinary Faculty, College of Agriculture in Wroclaw, and the I Clinic of Internal Diseases, Medical Academy in Lodz.

KARPIAK, Stanislaw, E.; KOZAR, Zbigniew; KRZYZANOWSKI, Marian

Changes in the metabolism of the skeletal muscles of guines pigs caused by the invasion of Trichinella spiralis. I. Influence of the invasion on the carbohydrate metabolism of muscles. Wiad. parazyt. 9 no.5:435-446 *63.

1. Laboratory of Anthrophozomozes, Department of Parasitology Polish Academy of Sciences, Wroclaw.

ZARZYCKI, Jan; KOZAR, Zbigniew; CZAJKOWSKA, Jadwiga.

Supravital staining of the intestine and muscle tissue during infection with Trichinellae. Wiad. parazyt. 9 no.5%447-451 *63.

1. Department of Histology and Embryology, Veterinary Faculty, College of Agriculture, Wroclaw, and Laboratory of Anthropo-zoonozes of the Department of Parasitology, Polish Academy of Sciences, Wroclaw.

KOZAR, Zbigniew; KARPIAK, Stanislaw; TRZTZANOJSKI, Marjan, KOZAR, Maria

Metabolism of Trichinella spiralis larvae. Wiad parazyt. 10 no.42280-281 '64

The effect of Trichinella spiralis infection on fat metabolism and enzyme activity of the Krebs cycle in skeletal muscles of guinea pigs. Ibid.:282-283

1. Pracownia Antropozoonez Zukladu Parazytologii Polskiej Akademii Nauk, Katedra Parazytologii i Chorob Invazyjnych i Katedra Chemli Fizjologicznej Wyzszej Szkoly Rolniczej, Wrocław.

KOZAR, Zbieniew; ARZYCKI, Jan; SENIUTA, Roza; MARTYNOMICZ, Tadeusz; KASSNER, Jorzy

Histochemical studies on the intestinal phase of trichinosis in mice. Wiad. parazyt. 10 no.4:293-294 164

1. Pracownia Antropozoonoz Zakladu Parazytologii Polskiej Akademii Nauk, Wroclaw; oraz Katedra Parazytologii i Chorob Inwazyjnych i Zaklad Histologii Wyzszej Szkoly Rolniczej, Wroclaw.

KOZAR, Zbigniew; OGIELSKI, Leslaw

Trichinosis in pigs in Poland. Wiad. parazyt. 10 no.4:352-353 164.

1. Pracownia Antropozoonoz Zakladu Parazytologii Polskiej Akademii Nauk i Katedra Parazytologii i Chorob Inwazyjnych Wyzszej Szkoly Rolniczej oraz Katedra Higieny Srodkow Spozywczych Zwierzęcego Pochodzenia, Wyzsza Szkola Rolnicza, Wroclaw.

SLACKI, Edward; KOZAR, Chigolew

Chronic trichinesis in diseases of the miscola: and corollatory systems. Wind. parazyt. 10 no.42336-337 161

1. Pracownia Antropezoonez Zaklaiu Paracytologii Polskiej Akademii Nauk, Wroclaw, i Klinika Chorob Wewnetranych Akademii Medyeznej, Lodz.

KOZAR, Maria; KOZAR, Zbigniew; KARMANSKA, Krystyna

Comparative evaluation of agglatination tests in the diagnosis of trickinosis. Wind. paraxyt. 10 no.42344-346 464

1. Pracownia Antropozomoz Zaklada Farazytologli Polskiej Akademii Nauk, Wroclaw, i Katedra Farazytologli i Chorob In-wazyjnych Wyzszej Szkoly Rolniczej, Wroclaw.

KGZAR, Zbigniew; KURCIO, Wladyslaw

Epidemiologic study of trichinosis by means of the skin test on inhabitants of Miechow in Cracov region. Wlad. parazyt. 10 no.42350-351 *64

1. Pracownia Antropozoonoz Zakladu Parazytologii Polskiej Akademii Nauk, Wroclaw i Powiatowy Wydzial Zdrowia, Miechow.

KOZAR, Zbigniew; KOZAR, Maria

Comparative studies on the infectivity pathogenicity of Trichinella spiralis strains from Foland and Africa. Wiad. parazyt. 10 no.4:358-359 '64

1. Pracownia Antropozocnoz Zakladu Parazytologii Polskiej Akademii Nauk, Wroclaw i Katedra Parazytologii i Chorob Inwazyjnych Wyzszej Szkoly Rolniczej, Wroclaw.

KOZAR, Zbigniew; SLADKI, Edward; ZOINIERKOWA, Danuta

Clinical aspects of chronic trichinellosis in people. I. Periodical examinations and therapeutic trials in patients with chronic trichinellosis in the light of recent pathogenetic considerations. Wiad. parazyt. 10 no.6:651-663 164

1. Laboratory of Antropozoonoses of the Department of Parasitology, Polish Academy of Sciences, and Department of Parasitology, Veterinary Faculty, Wroclaw, Poland.

KOZAR, Zbigniew; SLADKI, Edward; ZAK, Edward

Clinical aspects of chronic trichinellosis in people. II. Studies in patients with chronic diseases of the motoric system. Wiad. parazyt. 10 no.6:665-671 '64

1. Laboratory of Antropozomoses of the Department of Parasitology, Polish Academy of Sciences, and Department of Parasitology, Veterinary Faculty, Wroclaw, Poland.

KCZAR, Zbigniew; SLADKI, Edward

Clinical aspects of chronic trichinellosis in people. III. Analysis of clinical and anatomopathologic diagnoses of cases in which Trichinella infection was detected in post-mortem examinations. Wiad. parazyt. 10 no.6:2673-690 164

1. Laboratory of Antropozocnoses of the Department of Parasitology, Polish Academy of Sciences, and Department of Parasitology, Veterinary Faculty, Wiroclaw, Poland.

KOZAR, Maria; KOZAR, Zbigniew; KARMANSKA, Krystyna

The comparative evaluation of some agglutination tests in the diagnosis of trichinellosis. Wiad. parazyt. 10 no.6:717-737 '64

1. Laboratory of Antropozoonoses of the Department of Parasitology, Polish Academy of Sciences and Department of Parasitology, Veterinary Faculty, Wroclaw, Poland.

KOZAR, Zbigniew; KURCIO, Wladyslaw

Epidemiologic investigations on trichinellosis by means of allergic test in Miechow district, Cracow voivodeship. Wlad. parazyt. 10 no.6:739-746 '64

1. Laboratory of Antropozoonoses of the Department of Parasitology, Polish Academy of Sciences and Department of Parasitology, Veterinary Faculty, Wroclaw, Poland.

KOZAR, Zhigniew

The role of the Polish Parasitologic Society in the development of parasitology in post-war Poland. Wiad. parazyt. 11 no.1:9-21 '65.

1. Prezes Polskiego Towarzystwa Parazytologicznego.

KOZAR, Zbigniew: KARPIAK, Stanislaw

Significance of studies on the metabolism of parasitic helminths. Wiad. parazyt. 11 no.1.3-97 '65.

1. Pracownia Antropozoonoz Polskiej Akademii Nauk, Katedra Parazytologii i Katedra Chemii Fizjologicznej Wyzszej Szkoly Rolniczej, Wrocław.

KOZAR, Zbigmlow

Current scientific and practical problems of trichinosis. Wiad. parazyt. 11 no.1:191-196 '65.

1. Katedra Parazytologii i Chorob Inwazyjnych Wydzialu Weterynar. Wyzszej Szkoly Rolniczej i Pracownia Antropozocnoz, Polska Akademia Nauk, Wrocław.

KOZAR, Z.

The review of current literature on trichinellosis. Wiad. parasyt. 11 no.4:353-423 165.

KOZAR, Zbigniew; KOZAR, Maria

Incidence of Trichinella spiralis in the Polish population on the basis of post-mortem examinations. Wiad. parazyt. 11 no.4:233-243 '65.

Experimental trichinellosis of mice induced by parenteral injection of muscular larvae. Ibid.:335-349

1. The Laboratory of Anthropozoonoses, Polish Academy of Sciences and the Department of Parasitology, Veterinary Faculty, Wroclaw, Poland.

KOZAR, Zbigniew; OGIEISKI, Leslaw

Trichinosis of pigs in Poland in the post-war period with special reference to 1960-1962. Wiad. parazyt. 11 no.4: 245-283 '65.

1. Pracownia Antropozoonoz Polskej Akademii Nauk, Katedra Parazytologii i Chorob Inwazyjnych oraz Katedra Higieny Srodkow Spozywczych Wyzszej Szkoly Rolniczej, Wroclaw.

KOZAR, Zbigniew; RAMISZ, Alojzy; KOZAR, Maria

Incidence of Trichinella spiralis in some domestic and wild living animals in Poland. Wiad. parazyt. 11 no.4:285-298 '65.

1. Department of Parasitology of the Veterinary Faculty, and Laboratory of Anthropozoonoses, Polish Academy of Sciences in Wroclaw.

KOZAR, Zofija

mercentile the state of the state

Pulmonary resection in two children with postprimary cavernous tuberculosis. Zdrav.vest., Ljubljana 24 no.3:104-105 1955.

1. Otroski oddelek specialne bolnisnice za tuberkulozne v Novem Celju ravnatelj Dr. Ivan Kopac.

(TUBERCULOSIS, PULMONARY, in infant and child, cavitation, pulm. resection)

VORONTSOV-VEL'YAMINOV, B.A.; DOKUCHAYEVA, O.D.; YEFREMOV, Yu.I.;
KOZARENKO, B.I.; KARIMOVA, D.K.; KOSTYAKOVA, Ye.B.; LOZINSKIY, A.M.;
MANOVA, G.A.; TSITSIN, F.A.; SHAROV, A.S.

Observations of Arend-Roland's comet (1956 h). Astron.tsir. no.180:2-4 My '57. (MIRA 13:4)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shernberga, Moskva.

(Comets--1956)

BUGOSLAVSKAYA, Ye.Ya. [deceased]; KOZARENKO, B.I.

The KIM-3 measuring instrument. Trudy GAISH 30:164-180 '61.

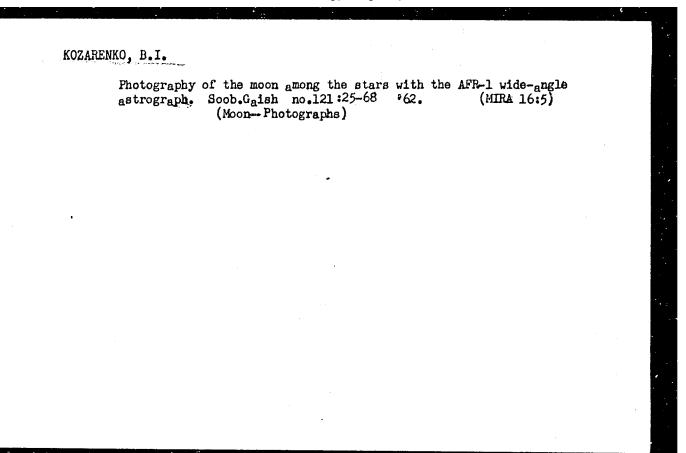
(Astronomical instruments)

(MIHA 14:8)

KOZARENKO, B.I.

Determining the optical center of the AFR-1 plate. Socb.GAISH no.104:39-41 '61. (MIRA 15:3) (Astronomical photography—Equipment and supplies)

Determining the brightness equation for the 400mm. astrograph of the Main Astronomical Observatory of the Academy of Sciences of the Ukrainian S.S.R. Soob, GAISH no.104:42-54 '61. (MIRA 15:3) (Telescope)



"APPROVED FOR RELEASE: Monday, July 31, 2000

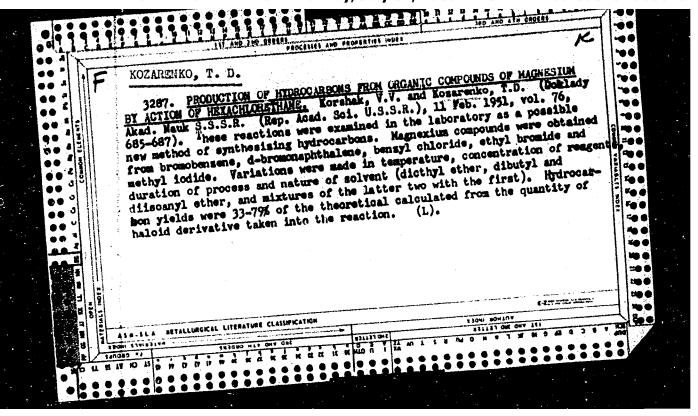
CIA-RDP86-00513R000825720

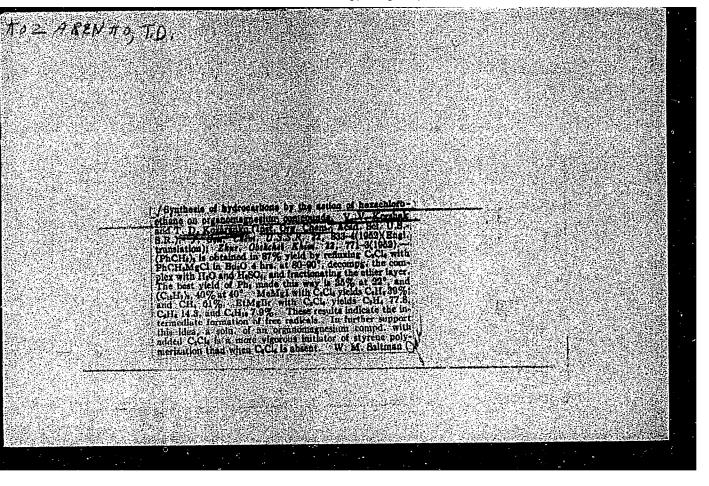
|--|

KOZARENKO, R. D.

Korshak, V. V., Kozarenko, R. D. - "Synthesis of hydrocarbons by the action of hexachloroethane on organomagesium compounds." (p. 771)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1952, Vol. 22, No. 5





KOZARENKO, T. D.

Dissertation: "A Study of the Polycondensation of the Esters of Alpha-Aminoacids." Card Chem Sci, Inst of Organic Chemistry, Acad Sci USSR, Moscow, 1953. Referativnyy Zhurnal-Khimiya, Moscow, No 7, Apr 54.

SO: SUM 284, 26 Nov 1954

KOZARENKO, T. D. Organio-chemistry VESR/ Chemistry Pub. 40 - 13/27 1/1 card | Korshak, V. V., Poroshin, K. T., and Kozarenko, T. D. Authors From the field of high molecular compounds. Part 64.- Polycondensation Title of ethyl ether of d.l-alamine t Isv. AN SSSR, Oto, khim, nank l, 663 - 669, July - August 1954 Periodical The polycomdensation reaction of ethyl ether of d, 1-alanine, was investig Abstract gated at various temperatures to determine the effect of catalysts on this process. The effect of soids (including carbonic and amino soids), and bases on the rate of polycondensation reaction, is discussed. The kinetics of the polycomiensation was investigated in the presence of eartionic anhydride, acetic acid, polyalanine and without the catalyst. The water-soluble products; obtained from combined polycondensation of ethyl ethers of dil-phenylalanine and glycol, are described. Twelve references: L USSR; 5 German; 2 USA and 1 Swiss (1894 - 1951). Tables; graphs; diagrams. Institution & Acad. of Sc. USSR, Institute of Organic Chemistry : August 29, 1953 Submitted

POROSHIN, K.T.; KOZARENKO, T.D.; KHURGIN, Yu.I.

Differential titration of tripeptides and diketopiperazines in the products of polycondensation of the ethyl ester of glycine. Izv. AN SSSR.Otd.khim.nauk no.5:626-628 My '56. (MIRA 9:9)

1.Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.
(Titration) (Glycine) (Condensation products (Chemistry))

KOZARENEO, T.D.

USSR/Organic Chemistry. Natural Substances and Their E-3 Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No. 8, 1957, 27003.

Poroshin, K.T., Kozarenko, T.D., Khurgin, Yu. I. Author

Academy of Sciences of USSR. Inst

Mutual Conversions of Dipeptides and Their Title

Anhydrides.

Orig Pub: Dokl. AN SSSR, 1956, 109, No. 2, 329 - 331.

The stability of glycylglycine diketopipera-Abstract: zine (I) and alanylalanine diketopiperazine

(II) in alkaline medium was studied. The hydrolysis constants for I and II, equal to pKo 10.8 and 12.0 correspondingly, were computed from the measurements of hydrolysis depths of I and II at various pH in alkaline medium and 400. The

Card 1/2

USSR/Organic Chemistry. Natural Substances and Their E-3 Synthetic Analogues.

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26003.

> alkaline hydrolysis of I and II is a reaction of the first order with speed constants of 9.63 x 10⁻⁴ sec⁻¹ for I and 2.56 x 10⁻⁴ sec⁻¹ for II. Partial cyclization of III with formation up to about 25% of I occurs, when glycyl-glycine (III) is heated even under the conditions of incomplete stability of II. The order of the cyclization reaction is not below the second.

KOZARENKO, T. D., KHURGIN, Yu t., and PAROKHIN, K. T.

"Mechanism and kinetics of the polycondensation of esters of amino acids," a paper presented at the 9th Congress on the Chemistry and Physics of the High Polymers, 28 Jan- 2 Feb 57, Moscow Research Inst. Organic Chemistry.

B-3,084,395

KOZARENKO, T.D.

KHURGIN, Yu.I.; POROSHIN, K.T.; KOZARENKO, T.D.

Kinetics and polycondensation mechanism of esters of α-amino acids. Report No.2. Kinetics of polycondensation of glycine ethyl ester. Izv.AN SSSR. Otd.khim. nauk no.2:174-178 F 57. (MIRA 10:4) 1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR. (Glycine) (Condensation products(Chemistry))

iszarenko, T.D.

USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topochemistry Catalisis.

B-9

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 3858

Author : T.D. Kozarenko, K.T. Poroshin, Yu. I. Khurgin.

Inst : Academy of Sciences of USSR, Section of Chemical Sciences.
Title : Kinetics and Chemism of Polysonders and Chemism of Polysonders and Chemism of Polysonders.

: Kinetics and Chemism of Polycondensation of A-Aminoacid Esters. 3. Influence of Carbon Dioxide on Composition of

Polycondensation Products of Glycine Ethyl Ester.

Orig Pub: Izv. AN SSSR, Otd. Khim. n., 1957, No 5, 563-568.

Abstract: The composition of polycondensation products of glycine ethyl ester was studied at various ratios of the initial molar CO₂ concentrations and the monomer. The reaction product was analyzed after the monomer removal. The reaction product was treated with diethyl ester and was a thick mass containing a mixture of paptide ethyl esters. The obtained kinetic curves permit to establish 2, differing by speed, phases in the poly-

Card : 1/3

۵9.

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825720

USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topochemistry Catalisis.

B-9

Abs Jour: Referat. Zhurmal Khimiya, No 2, 1958, 3858

condensation process, the lst, retarded, phase depends on the initial CO₂ concentration, and the 2nd phase is subject to identical kinetic regularities independent of the CO₂ content. The qualitative investigation of the polycondensation products was carried out by the method of distributing chromatography on paper using the systems butanol — acetic acid — water, pyridine—butanol — water and phenol — water; up to 0.1% of trilon B was added to the mobile phase in order to eliminate the influence of heavy metals contained in paper. It is shown that in the first stages of the process, glucilglycine ester is rapidly consumed in its conversion into diketopiperazine, as well as in the formation of diglycilglycine ester. The basic reaction is the addition of the monomer to peptide esters, but not the interaction of esters with peptides. The diketopiperazine con-

Card : 2/3

-10-

tent was determined by the method of differential titration in various reaction stages, as well as in the sum total of various peptides. See report II in RZhKhim, 1957, 60782.

Card : 3/3

KOZARMNKO, T.D.; POROSHIN, K.T.; KHURGIN, Yu.I.

1. Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR.

(Carbon dioxide) (Glycine) (Peptides)

POROSHIN, K.T.; KOZARENKO, T.D.; KHURGIN, Yu.I.

Kinetics and chemism of polycondensation of d -amino acid esters.

Report No.6: On the mechanism of polycondensation of d -amino acid esters. Twv. EN SSSR. Otd. khim. nauk no.5:642-644 Wy '57.

(MEA 10:8)

1. Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR.

(Amino acids) (Condensation products (Chemistry))

AUTHORS:

62-58-3-27/30 Iveronova, V. I., Poroshin, K. T., Andreyeva, N. S.,

Kozarenko, T. D., Poroshin, K. T., Shibney, V. A., Shutskever, N. Ye.

TITLE:

Investigation of the Structure of Peptides Containing Glycine and 1-Proline (Issledovaniye struktury peptidov,

soderzhashchikh glitsin i l-prolin)

PERIODICAL:

Izvestiya Akademii Nauk SSSR,Otdeleniye Khimicheskikh

Nauk, 1958, Nr 3, pp. 376-377 (USSR)

ABSTRACT:

The investigation of peptides containing amino acids is of importance for the investigations of the structure of proteins. The stereochemical rôle of pyrrolidine rings within the configuration of the polypeptide chain has not yet been sufficiently explained. In general it is assumed that the bends of the polypeptide chains are formed in such points, where residues of proline and oxyproline are present. At present structural investigations of the peptides and polypeptides of numerous amino acids are carried out. There have, however, only few works been published on the investigation of compounds containing amino acids. The aim of this work is the investigation of the above mentioned

Card 1/2

Investigation of the Structure of Peptides Containing 62-58-3-27/30 Glycine and 1-Proline

> structure of peptides. Glycyl-l-prolyl, l-prolylglycine, carbobenzoxyglycyl-1-prolyl and the anhydride of glycyl-1proline were synthetized. Furthermore the first stage of the x-ray analysis of the synthetized compounds was

finished.

There are 1 table and 10 references, 1 of which is Soviet.

ASSOCIATION:

Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta i Institut organicheskoy khimii im.

N. D. Zelinskogo Akademii nauk SSSR

Physics Department of Moscow State University and the Institute for Organic Chemistry imeni N. D. Zelinskiy.

AS USSR)

SUBMITTED:

.:

October 31, 1957

Card 2/2

AUTHORS:

Poroshin, K. T., Kozarenko, T. D., Shibnev, SOV/62- 58- 9- 20/26

V.A.

TITLE:

The Exchange Reactions Between 1-Prolylglycine-Diketopipera-

zine and Its Dipeptides (O vzaimoprevrashchenii diketo-

piperazina l-prolilglitsina i yego dipeptidov)

PERIODICAL:

Izvestiya Akademii nauk. SSSR. Otdeleniye khimicheskikh nauk,

1958, Nr 9, pp 1129 - 1132 (USSR)

ABSTRACT:

Glycine, 1-proline, and α -amino acids in general are especially important in relation to the question of the structure of collagen. The separation of considerable amounts of glycyl-1-proline and 1-prolylglycine from hydrolysed collagen leads to the assumption that both dipeptides are structural elements in the protein molecule.

The protein hydrolysis has been carried out under various

conditions in the past (Refs 1-3), and this makes difficult a clear explanation of the proponderance of glycyl-proline and l-prolylglycine-dipeptide in the chain.

The authors of this brief communication attempted to form a cyclic anhydride of glycyl-l-proline and l-prolyl-glycine. They further investigated the possibility of

Card 1/2

The Exchange Reactions Between 1-Prolylglycine- Diketo- SOV/62-58-9-20/26 piperazine and Its Dipeptides

hydrolysing the anhydride to the dipeptide. It was found that even under moderate conditions the anhydride of 1-prolylglycine forms glycyl-1-proline in base and 1-prolylglycine in acid. The hydrolysis of the 1-prolyl-glycine anhydride does not go to completion, but attains an equilibrium condition. The formation of cyclic anhydrides of both dipeptides is simple, especially for glycine-1-proline. There are 1 figure and 7 references, 1 of which is Soviet.

ASSOCIATION:

Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N.D.Zelinskiy, AS USSR)

SUBMITTED:

March 22, 1958

Card 2/2

5(3) AUTHORS:

Poroshin, K. T., Shibnev, V. A.,

SOV/62-59-4-28/42

Kozarenko, T. D.

TITLE:

Synthesis of Peptides Containing L-Proline and Glycine (Sintez peptidov, soderzhashchikh L-prolin i glitsin)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,

1959, Nr 4, pp 736-738 (USSR)

ABSTRACT:

This is a short report on the investigation of the synthesis and properties of L-prolylglycyl-L-proline, L-prolylglycyl-L-prolylglycine and of polymers which contain these groups in the molecular chain. The peptides mentioned can be synthesized by the method of the mixed anhydrides (Ref 9) and the respective polymers by the method of the polycondensation of methyl esters of these peptides. The synthesis of L-prolylglycyl-Lprolylglycine esters was carried out in two ways: 1) by gradual addition of the methyl esters of amino acids (glycine, L-proline, glycine) to carbobenzoxy-L-proline (Scheme, I); 2) by addition of the methyl ester of L-prolylglycine to carbobenzoxy-L-prolylglycine (stage A, Scheme). The synthesized peptides and their esters were identified by

Card 1/2

Synthesis of Peptides Containing L-Proline and

SOV/62-59-4-28/42

Glycine

means of descending chromatography (Table). There are 1 table and 11 references, 2 of which are Soviet.

ASSUCIATION:

Institut organicheskoy khimii im. N. D. Zelinskogo Akademii

nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy

of the Academy of Sciences, USSR)

SUBMITTED:

July 19, 1958

Card 2/2

5(3,4)

507/62-59-5-31/40

AUTHORS:

Noskova, N. B., Poroshin, K. T., Kozarenko, T. D.

TITLE:

On the Accelerating Effect of the Peptide Esters on the Polycondensation Reaction of Glycine-ethyl Ester (Ob uskoryayushchem deystvii na reaktšiyu polikondensatsii etilovogo efira

glitsina efirov peptidov)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,

1959, Nr 5, pp 935-936 (USSR)

ABSTRACT:

On the basis of the observed acceleration of the condensation reaction of glycine-ethyl ester by addition of the esters of the polymer, the autocatalytic character of this reaction has already been pointed out in previous papers (Ref 1). In the present paper the autocatalytic character of the polycondensation reaction of the esters of amino-acids is investigated, for which purpose the influence exercised by certain additions of tripeptide and polycondensate upon the rate of the polycondensation reaction of glycine-ethyl ester is subjected to a close examination. The polycondensation reaction mentioned was investigated for the purpose of determining its character, i.e. with the addition of ${\rm CO_2}$, ${\rm CO_2}$ + tripeptide ester, and

Card 1/2

On the Accelerating Effect of the Peptide Esters on the Polycondensation Reaction of Glycine-ethyl Ester

further without the addition of ${\rm CO}_2$, addition of polycondensate, and addition of tripeptide ester in dependence on the time of reaction (Figs 1,2). It was found that the reaction time of polycondensation in the absence of ${\rm CO}_2$ passes considerably more slowly and is divided into two stages. A rather long first stage, in which hardly any polycondensation occurs at all, (58 hours) is followed by a second in which the kinetics of the development of polycondensation is of the first order. The presence of polycondensate shortens the first stage. The reaction kinetics of the second stage remains one of the first order owing to the additions. There are 2 figures and 8 references, 4 of which are Soviet.

ASSOCIATION:

Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences. USSR)

SUBMITTED:

October 22, 1958

Card 2/2

5(3)

SOV/62-59-5-34/40

AUTHORS:

Khurgin, Yu. I., Poroshin, K. T., Kozarenko, T. D.

TITLE:

The Kinetics of the Polycondensation of Glycine-ethyl Esters in the Presence of Its Carbamate (Kinetika polikondensatsii etilovogo efira glitsina v prisutstvii yego karbamata)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 5, pp 941-943 (USSR)

. ABSTRACT:

In the course of previous investigations of the kinetics of the polycondensation of esters of the α -amino acids it has been shown that the initiating effect of carbon dioxide is connected with the formation of the symmetric carbamate:

R'OOC. CHR.NH, OOC.NH.CHR.COOR'. Carbamate formation is an

endothermic reaction, and therefore overheating of the reaction mass may easily occur if ${\rm CO}_2$ is added at an increased rate. The

carbamate itself causes no thermal impediment to polycondensation. In this connection, the kinetics of the consumption of monomers and the variation of the composition of the polycondensed glycine-ethyl ester obtained in the presence of a carbamate was investigated in the present case. The investi-

Card 1/3

sov/62-59-5-34/40

The Kinetics of the Polycondensation of Glycine-ethyl Esters in the Presence of Its Carbamate

gation methods are the same as those of reference 1. The content of free monomers, the reaction product yield, and their diketopiperazine and amino nitrogen content was determined. Figures 1 and 2 show the velocity constant of the consumption of monomers and, accordingly, the concentration of the diketopiperazines in the polycondensation products when carbamate and ${\tt CO}_2$ are

used as initiators. From the difference alone between the consumption of monomers conclusions are drawn as to a difference in the kinetics of the aggregation of the diketopiperazines. From figure 2, which shows the concentration of diketopiperazines in the final products, a distinct difference in the two initiators may be recognized, especially at the beginning of the reaction. The difference is caused by heating the reaction mass by the endothermal formation of carbamate when using the CO2-initiator.

When carbamate is used as initiator, the reaction product yield remains proportional to the time of reaction, and also the amino nitrogen (NH2-N) content in the reaction products remains constant. The authors thank Ye. V. Leonova for her assistance.

Card 2/3

SOV/62-59-5-34/40

The Kinetics of the Polycondensation of Glycine-ethyl Esters in the Presence

of Its Carbamate

The activation energy of the affiliation of the monomer to the peptide was determined. There are 2 figures and 5 references,

4 of which are Soviet.

ASSOCIATION:

Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk

SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of

the Academy of Sciences, USSR)

SUBMITTED:

October 28, 1958

Card 3/3

5(3)) AUTHORS: Shibnev, V. A., Kozarenko, T. D., Poroshin, K. T. SOV/62-59-6-31/36

TITLE:

On the Separation of L-Proline and L-Oxyproline by the Rhoder The Method (O vydelenii L-prolina i L-oksiprolina rodanilatnym sposobom)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 6, pp 1132 - 1133 (USSR)

ABSTRACT:

By the rhodanyl method for the separation of L-proline and L-oxyproline the imino acids are always obtained with some impurities because of the great similarity of these acids. The one always contains an addition of the other. Therefore the method was changed somewhat so that by nears of it it is possible not only to separate the L-proline required but also the L-oxyproline in a chromatographically pure form from the hydrolisate of the gelatin. The yield in L-oxyprolin obtained with this method was 12% of this imino acids contained in the gelatin. The separation of the imino acids from the gelatin was made according to Bergmann. After the separation of L-proline (pure) from the mixture of L-proline and L-oxyproline, the latter (60%) is obtained with an admixture of 40% L-proline. This mixture is treated with methanol and dry ether and the powder of the imino acids thus obtained

Card 1/2

On the Separation of L-Proline and L-Oxyproline by the Rhodanilic Method

SOV/62-59-6-31/36

from methanol water is subjected to repeated re-crystallization, which leads to L-oxyproline in purest form. The L-proline contained in the methanol filtrate is then in a similar way purified from the L-oxyproline still contained in vestige, and thus finally also purest L-proline is obtained. There are 6 references, 1 of which is Soviet.

ASSOCIATION:

Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SURMITTED:

December 9, 1958

Card 2/2

5(3), AUTHORS:

RS: Kozarenko, T.D., Noskova, N.B.,

SOV/62-59-7-25/38

Poroshin, K.T.

TITLE:

On the Chlorhydrate-Method for the Determination of the Monomer in the Reaction of Polycondensation of the Esters of Manino Acids (O khlorgidratnom metode opredeleniya monomera v reaktsii polikondensatsii efirov Maninokislot)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 7, pp 1324 - 1327 (USSR)

ABSTRACT:

The synthesis of polyamino acids by polycondensation develops chiefly in the first stage by successive chain formation from the monomers (Type A) and in the further stages by interreaction of the polymer molecules

(Type B). The reaction-type A develops more rapidly than the type B. The consumption of monomers for chain formation is determined in the final product from the non-reacting monomers. Separation of these monomers is easy, but the determination in the ether extract is connected with some difficulties. A new method was elaborated by the authors precipitating the monomers as their hydrochlorides. Beside the possibility of quantitative separation of the salts from

Card 1/2

On the Chlorhydrate-Method for the Determination SOV/62-59-7-25/38 of the Monomer in the Reaction of Polycondensation of the Esters of Amino Acids

the ether extract, this method offers the advantage that the salts are also not destroyed by warming to

100°; so they may be used for further polycondensation. The determination of the ethyl esters of glycine,d, l-phenylalmine l-alanine, d,l-valine and l-proline is described in the experimental part. The results are listed in tables 1-4. There are 4 tables and 12 references, 2 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N.D. Zelinskogo Akademii

nauk SSSR

(Institute of Organic Chemistry imeni N.D. Zelinskiy of the

Academy of Sciences, USSR)

SUBMITTED: November 30, 1957

Card 2/2

5(3) AUTHORS:

Khurgin, Yu.I., Kozarenko, T.D.,
Poroshin, K.T.

SOV /62-59-7-26/38

TITLE:

The Kinetics and Chemism of the Polycondensation of the Esters of & -Amino Acids (Kinetika i khimizm polikonden-

satsii efirov & -aminokislot)

VIII. The Influence of the Initial Content of Carbamate on the Velocity of the Polycondensation of the Ethyl-Ester

of Glycine (Scobshcheniye 3. Vliyaniye nachal'nogo soderzhaniya karbamata na skorost'polikondensatsii

etilovogo efira glitsina)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,

1959, Nr 7 pp 1328 - 1332 (USSR)

ABSTRACT:

Introducing the well-known mechanism of polycondensation of the esters of ∞-amino acids under the influence of simple initiators— in this case CO₂— and the formation of initiator substrate is described briefly (Refs 1-4). It had

been shown, that the original initiator for the polycondensation is not CO₂, but the symmetric carbamate as the

Card 1/5

arising substrate. If this is true, it must be the same for

The Kinetics and the Chemism of the Polycondensation SOV/62-59-7-26/38 of the Esters of &-Amino Acids. VIII. The Influence of the Initial Content of Carbamate on the Velocity of the Polycondensation of the Ethyl-Ester of Glycine

the velocity of polycondensation, no matter whether carbamate is formed by the addition of CO₂ or is added directly. Moreover, for a small amount of i/m · i/m is the relative, molar initial concentration of the initiator i, related to the monomer m - the consumption of the monomer must be proportional to the initial amount of carbamate. In the investigation of kinetics it had been shown that this proportionality was maintained for all initial concentrations. The consumption of monomer may be represented by the following equation:

$$m(t) = (1 - 2 f_0)e^{-k(f_0)t}$$

In this paper the above named assumption is investigated. The dependence of the velocity of monomer consumption on the initial concentration of the initial r was investigated. The content of free monomers in the reaction product was

Card 2/5

The Kinetics and Chemism of the Polycondensation SOV/62-59-7-26/38 of the Esters of & Amino Acids. VIII. The Influence of the Initial Content of Carbamate on the Velocity of the Polycondensation of the Ethyl-Ester of-Glycine

determined by means of the improvement method. Moreover, the consumption of monomers was investigated with immediate initiation with symmetric carbamate. The experimental data for the consumption of monomers with initial concentrations of initiator CO_2 $f=0.01,\ 0.02,\ 0.04,\ 0.08$ and 0.16 are demonstrated in a semi-logarithmic scale in figure 1. For all i/m monomer's consumption is first class. The extrapolation of the straight line cuts the ordinate in the point $lgm = 0 (m = 1) = m^0$. m^0 is reduced with increasing f_0 . Therefore m^0 is the exact initial concentration for the secondary stage of the reaction. In the equation obtained from the experiment:

$$m(t) = m^{\circ} \cdot e^{-kt}$$

Card 3/5 m^o and k were calculated by the method of the least squares.

The Kinetics and Chemism of the Polycondensation SOV/62-59-7-26/38 of the Esters of &- Amino Acids. VIII. The Influence of the Initial Content of Carbamate on the Velocity of the Polycondensation of the Ethyl-Ester of Clycine.

The results are listed in Table 1. 1 - m was calculated as the stoichiometrical coefficient of the reciprocal effect of the monomer with CO₂ in the primary stage of reaction.

In this case of carbamate initiation m was found to be 0.995 i.e. it was equal to the initial amount of the monomer. This result may serve as evidence that carbamate is formed in the first stage of the reaction. The constants of velocity of monomer consumption in dependence on the initial concentrations of carbamate i/m are listed in table 2. The kinetic curve (Fig 2) is a straight line up to concentrations i/m = 0.07. Moreover the velocity of monomer

consumption was proved to be independent of the length of the formed chain of polymers. There are 2 figures, 2 tables, and 7 references, 5 of which are Soviet.

Card 4/5

SOV/62-59-7-26/38 The Kinetics and Chemism of the Polycondensation of the Esters of &- Amino Acids. VIII. The Influence of the Initial Content of Carbamate on the Velocity of the Polycondensation of the Ethyl-Ester of Glycine.

ASSOCIATION: Institut organicheskoy khimii im. N.D. Zelinskogo Akademii

nauk SSSR

(Institute of Organic Chemistry imeni N.D. Zelinskiy of

the Academy of Sciences, USSR)

SUBMITTED:

November 30 , 1957

Card 5/5

5(3), 5(4)

SOV/62-59-8-18/42

AUTHORS:

Poroshin, K. T., Khurgin, Yu. I., Kozarenko, T. D.

TITLE:

Kinetics and Chemism of the Polycondensation of Esters of the a-Amino Acids and Peptides. Communication 9. On the Autocatalytic Nature of the Polycondensation of the Ethylester

of Glycine in the Presence of Carbon Dioxide

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk.

1959, Nr 8, pp 1453-1457 (USSR)

ABSTRACT:

In the present paper the assumption concerning the autocatalytic nature of the polycondensation reaction of the esters of α -amino acids in the presence of CO, is investigated. For this purpose the yield of the polycondensation products of ethylglycine ester was measured and their composition determined. The condensation product was fractionated and the products of the solid phase determined by weighing. It consisted of ethyl esters of glycine peptides of various lengths, and di-ketopiperazine. Several test series with different CO₂ con-

tents in the initial products were carried out. From the yields obtained it could be seen that the polycondensation of athylglycine ester is an autocatalytic process with a

Card 1/2

gradual growth of the peptide chain. The growth of the peptide